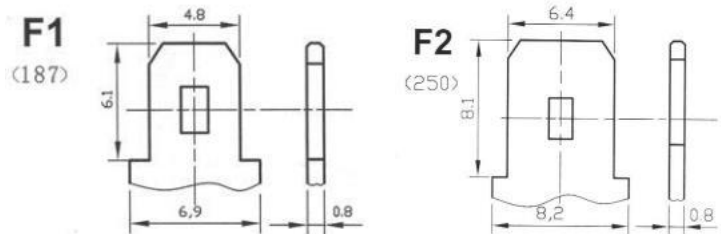


## Valve Regulated Lead-Acid Battery



Model: BT-12M7.0AT(12V7.0AH)



### Application

- ☆ Measuring equipment and instrument
- ☆ Telephone sets
- ☆ Lighting equipment
- ☆ Security systems
- ☆ UPS power supply

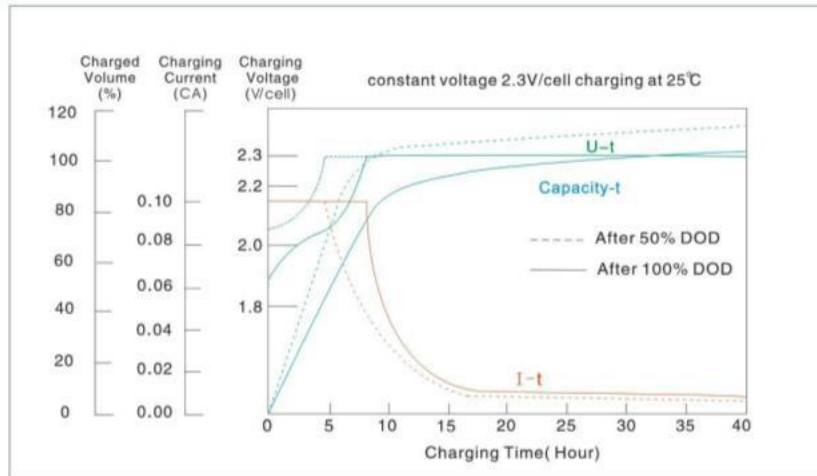
### General Features

- ☆ Designed floating charging service life: 8 years (25°C)
- ☆ Sealed and maintenance free operation
- ☆ Safety valve installation for explosion proof
- ☆ Low self-discharge characteristic
- ☆ Wide operating temperature range from 0°C-40°C
- ☆ Lead Aluminum calcium Tin alloy high energy, prevent corrosion

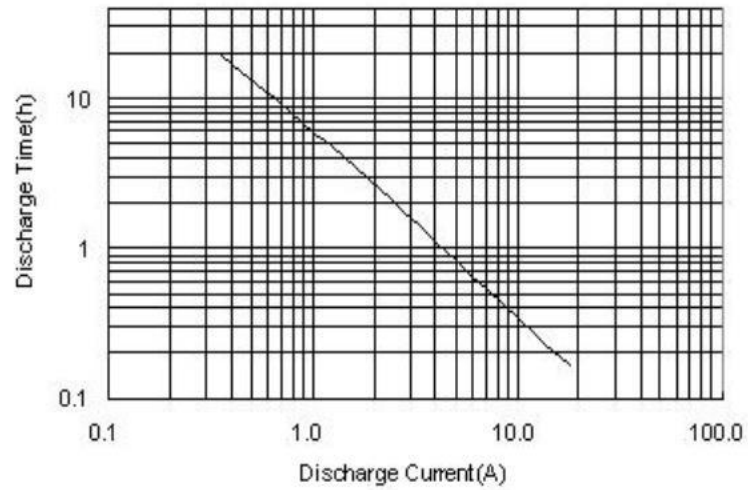
PHYSICAL SPECIFICATIONS		
<b>Nominal Voltage</b>		
	12V	
<b>Nominal Capacity (20HR)</b>		
	7.0AH	
<b>Dimensions</b>	<b>Length</b>	151±2mm
	<b>Width</b>	65±1mm
	<b>Container height</b>	95±1mm
	<b>Total Height (with terminal)</b>	100±2mm
<b>Weight±3%</b>		
	Approx 2.15Kg(4.353lbs)	
<b>Internal Resistance(In full charge status)</b>		
	≈20.1mΩ	
<b>Standard Terminals</b>		
	F1/F2(standard)	

Constant – Voltage Charge	
<b>Cycle application</b>	<ol style="list-style-type: none"> <li>Limit initial current less than 1.75A.</li> <li>Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).</li> <li>Hold at 14.1V to 14.4V until current drop to under 0.042A for at least 3 hours.</li> <li>Temperature compensation coefficient of charging voltage is -30mV/°C.</li> </ol>
<b>Standby service</b>	<ol style="list-style-type: none"> <li>Hold battery across constant voltage source of 13.6to 13.8 volts with current limit 1.75A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.</li> <li>Temperature compensation coefficient of charging voltage is -18mV/°C</li> </ol>
<p>NOTE : The battery should be charged within 6 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation</p>	

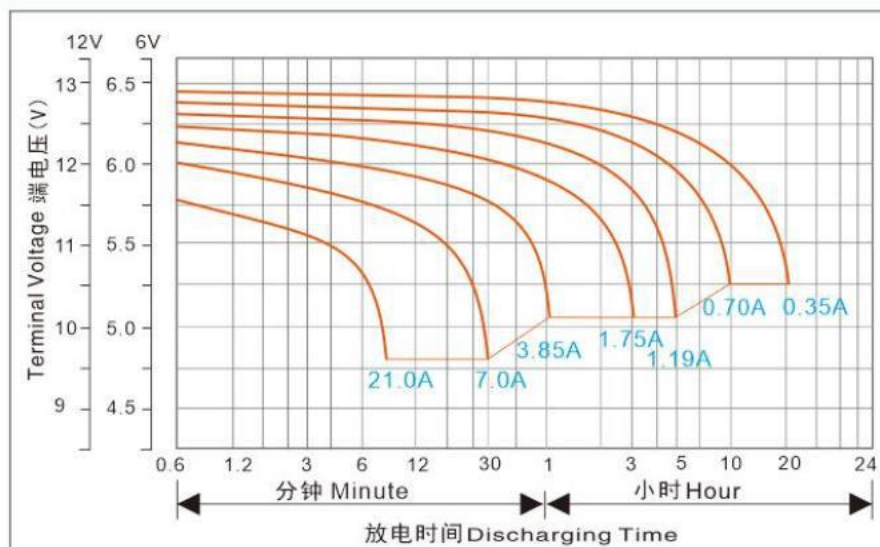
## Charge Characteristics



## Discharge Current & Discharge Duration Time (25°C/77°F)



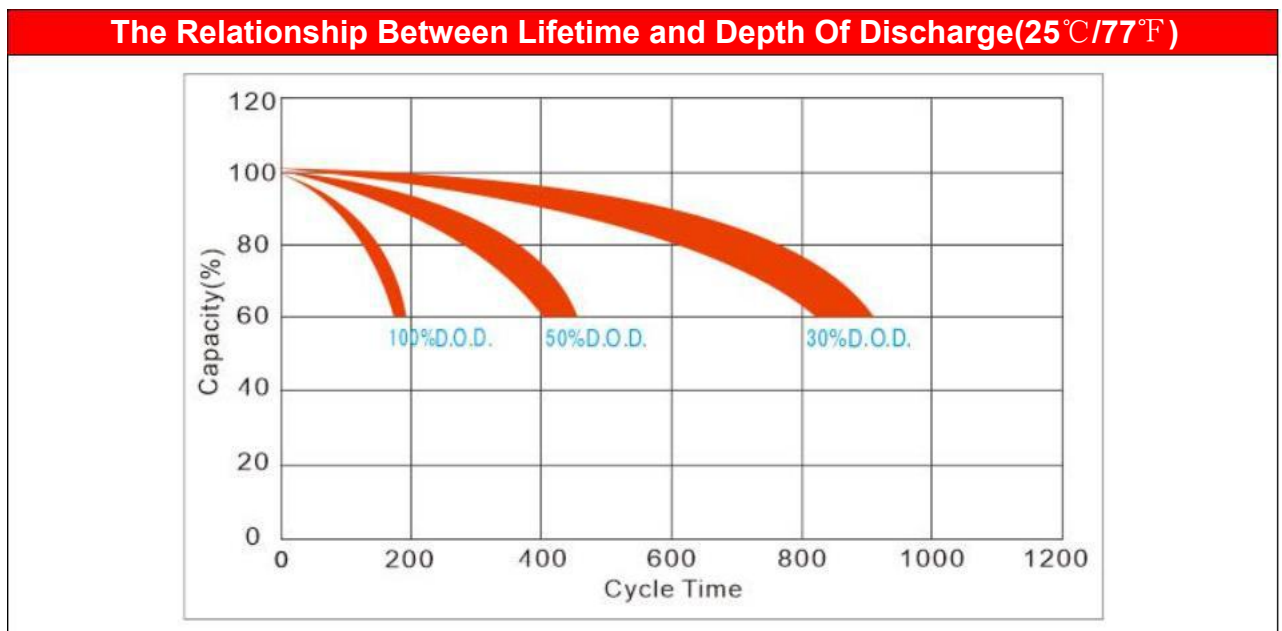
## Discharge Characteristic (25°C/77°F)



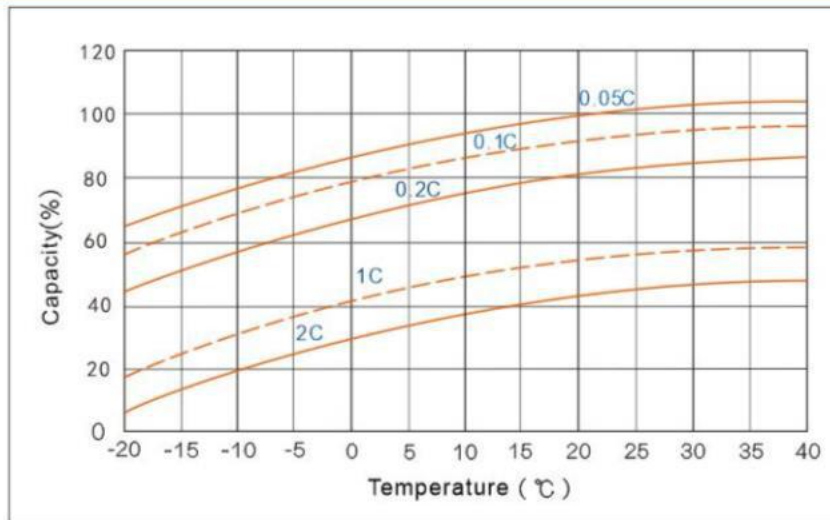
ELECTRICAL SPECIFICATIONS		
<b>Rated Capacity</b>	20 hour rate(350mA)	7.20AH
	10 hour rate(700mA)	6.75AH
	5 hour rate(1.19A)	5.90AH
	27 minute rate(7A)	3.60AH
	7 minute rate (21A)	2.50AH
<b>Capacity affected by Temperature (20Hour Rate)</b>	40°C(104°F)	103%
	25°C(77°F)	100%
	0°C(32°F)	86%

Constant Current Discharge Data Sheet ( Amperes at 25°C)													
End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
<b>10.20</b>	26.82	17.44	13.67	6.976	5.059	4.325	3.447	2.570	1.938	1.244	0.836	0.685	0.367
<b>10.50</b>	26.62	17.24	13.57	6.915	5.008	4.294	3.386	2.478	1.877	1.214	0.826	0.679	0.363
<b>10.80</b>	26.31	17.03	13.36	6.844	4.957	4.263	3.325	2.376	1.815	1.193	0.816	0.672	0.358

Constant Power Discharge Data Sheet ( Watt at 25°C)													
End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
<b>10.20</b>	287.6	207.5	168.0	94.85	69.15	52.61	40.35	30.35	21.66	14.28	10.057	8.139	4.386
<b>10.50</b>	275.4	200.6	163.0	92.90	67.56	51.77	39.76	29.93	21.17	14.12	9.975	8.017	4.325
<b>10.80</b>	261.1	193.2	157.7	90.20	65.85	50.92	39.17	29.50	20.81	13.95	9.873	7.884	4.263



## Capacity Curve at Different Temperature



## Storage Characteristics

